Product	D-Box 2
Version	All
Date	July 2010

User Manual
SmarTach D-Box 2

SUMMARY

Warning: _The complete reading of this manual is recommended in order to familiarize the user with the functions and operations of the equipment before using it._

1. Introduction

SmarTach D-Box 2, designed by ACTIA, is a portable tool to download Tachographs and Smartcards. It is designed to download data from both vehicle units when connected, or "Drivers" and "Workshops" smartcards when inserted in the reader.

SmarTach D-Box 2 is compatible with all tachographs brands and all archiving software. Easy to use, it is also a tool to transfer collected data to your computer. This function allows you to respect archiving obligations and to import your data to your management software.

Main functions

-Download data from tachographs. _Look p.6 section 4.1_

-Standalone and automatic smartcard download _Look p.7 section 4.2_

-Transfer collected data to a computer. Look _p.7 section 5._

2. Components

- SmarTach D-Box 2 AC600206

- USB cable to PC
  AY14600030

- 6-pin cable to tachograph
  AC600210

- Rubber protection (optionnal)
  AC600209

- 2 Go Micro SD card
  AY14600028

- CR 123A (3V) Battery

3. General characteristics

3.1 Technical specifications

- 32 character LCD display
- Robust plastic casing
- Size (L×W×H) : 144mm×63mm×21mm
- Weight: 106g (with battery)

- Power supply: CR123A (3V) Battery
- UTC Time (Universal Time Coordinated)
- 26 Languages available
- Work environment temperature: 0°C to +60°C

3.2 Functional specifications

3.2.1.1 LEDS

LED1 comes on permanently when the product is powered:

LED2 comes on blinking during an operation:

It becomes permanent at the end of the operation:

LED3 comes on permanently when the operation is successful:

When the operation is failed, LED3 comes on blinking:

3.2.1.2 Buttons

Settings menu

-Download a tachograph since last download
-Scroll down in settings mode

-Full download of a tachograph
-Scroll up in settings mode

OK Validate

3.2.1.3 Connections

1: Connection for tachograph cable
• To Tachograph

2: Location of the Micro SD card
• Micro SD card

3: Connection for the USB cable
• USB to PC

3.3 Configuration

The access of the configuration menu is possible when SmarTach D-Box 2 is powered.
(connected to a tachograph or a smartcard is inserted and downloaded).

The button [icon] allows to access to the menu:

In this menu, the user is allowed to configure the following elements:
- The language
- The date and time
- The content to download or not for the mode "since last download"
- The extension of the downloaded files

In these submenus, the navigation is done by the following buttons:

Come back to the roots of the configuration menu	Scroll down or decrement	Scroll up or increment	Enter in a submenu and Validation

3.3.1 Language

At the beginning of the line, the icon ► indicates the preselected item.
This icon is positioned on the first choice when you enter in this submenu.

The user chooses in the list the wished language thanks to the buttons ▼ and ▲ and press the button "OK"
To memorize the choice made, the user has to be positioned at the end of the list on the line called "validation" and press the button "OK"
This action allows coming back to the root of the configuration menu. The choice made previously is validated.

3.3.2 Date and time

A blinking cursor is positioned under the value to change.
The user changes the values thanks to the buttons ▼ and ▲
The button "OK" allows validating the displayed value and going to the next digit.
The two first digits of the year, "20" are not editable.
The last press on the button "OK" at the end of the line validates the choice.

3.3.3 "Since last download" configuration

At the beginning of the line the icon ► indicates the preselected item.
This icon is positioned on the first choice when you enter in this submenu.

The user chooses the content to download or not for the mode "since last download" among:
- Data sort "Detailed speed"
- Data sort "Additional data"

The user chooses in the list the element thanks to the buttons ▼ and ▲ and press the button "OK"
To memorize the choice made, the user has to be positioned at the end of the list on the line called "validation" and press the button "OK"
This action allows coming back to the root of the configuration menu. The choices made previously are validated.

3.3.4 Extension of downloaded files

At the beginning of the line the icon ► indicates the preselected item.
This icon is positioned on the first choice when you enter in this submenu.

The user chooses the extension of the downloaded files among:
- "DDD" format
- "ESM" format
- "V1B, C1B" format
- "TGD" format

The user chooses in the list the element thanks to the buttons ▼ and ▲ and press the button "OK"
To memorize the choice made, the user has to be positioned at the end of the list on the line called "validation" and press the button "OK"
This action allows coming back to the root of the configuration menu. The choice made previously is validated.

4. Download

Warning : To avoid breakdown or dysfunction, the SmarTach D-Box 2 must not has to be connected in the same time with 2 different communication medias (USB/Tachograph, Card/Tachograph, USB/Card)

4.1 Tachograph

4.1.1 Connection

• To Tachograph

Use the 6-pin cable (AC206210) to connect the SmarTach D-Box 2.
(Look p.4 section 3.2.1.2 Connection 1)

In the tachograph, this cable has to be connected on the front panel of the product in the 6-pin connector.

SmarTach D-Box 2 is powered when it is connected to the tachograph and the following screen appears :

PRESS
ONE BUTTON

4.1.2 Process

Reminder : To download the content of a tachograph, a smartcard of the type "Company" , "Control" or "Workshop" must be inserted in the tachograph in order to allow download.

2 kinds of download are available regarding the button pressed:

Full download

-Overview
-Activities of all available days
-Events and faults
-Detailed speed
-Technical data
- "Driver" card if present in the tachograph
-Additional data (if existing)

Since last download

-Overview
-Activities since the last download
-Events and faults
-Detailed speed (if item configured previously)
-Technical data
- "Driver" card if present in the tachograph
-Additional data (if item configured previously)

After a press on one of the two buttons, the following screens appears:

DOWNLOAD
WAIT

Downloaded contents are displayed on the second line of the screen

If the download was successful, the following screen appears:

DOWNLOAD
OK

If the download failed, the following screen appears:

DOWNLOAD
ERROR

4.2 Smartcard

Reminder:
- *Only data from " Driver" and "Workshop" smartcards can be downloaded*
- *There is two ways to download data from a smartcard:*
    -Introduce the card in the a tachograph and download its content (Look p.6 section 4.1)
    -Introduce directly the smartcard in the SmarTach D-Box 2 (look this section)

N.B:
*The data collect with the SmarTach D-Box 2 **is much faster** than the one made by the tachograph*

When the user introduce a smartcard, the SmarTach D-Box 2 comes on automatically and the following screen appears:

WAIT

Then when the download starts, the following screen appears:

DOWNLOAD WAIT

If the download was successful, the following screen appears:

DOWNLOAD OK

If the download failed, the following screen appears:

DOWNLOAD ERROR

5. Transfer the collected data to a computer

Reminder: The legislative support for storage is CD-ROM or floppy disk
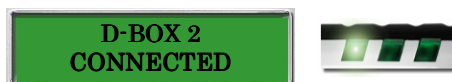
5.1 Connection

• USB to PC

Use the USB cable (AY14600030) to connect the SmarTach D-Box 2 to a computer.
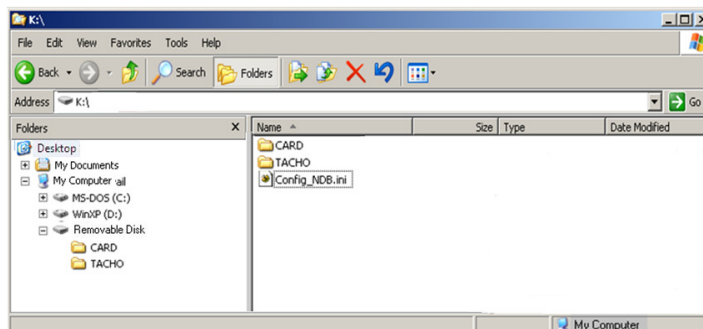*(Look p.4 section 3.2.1.2 Connection 3)*

On the computer, this cable has to be connected on a USB port.

SmarTach D-Box 2 is powered when its connected to the USB port and the following screen appears:

D-BOX 2 CONNECTED

5.2 Process

The SmarTach D-Box 2 is seen as a memory device type removable disk.
The structure of this memory is:

The root of the disc contains two directories and a configuration file:

- Under the directory "CARD", it is located all the uploaded files from smartcards.
  The extension of these files depends of the format chose by the user *(See p.5 section 3.3.4)*
  The user can copy, remove or delete these folders regarding its needs.

- Under the directory "TACHO", it is located all the uploaded file from tachographs
  The extension of these files depends of the format chose by the user *(See p.5 section 3.3.4)*
  The user can copy, remove or delete these folders regarding its needs.

- The file "Config_NDB.INI" contains all the configuration of the SmarTach D-Box 2.

  Warning: To avoid dysfunction, the file "Config_NDB.INI » must not be changed or deleted by the user

Nota Bene: In case of breakdown

Data from the Micro card SD can be downloaded in order to recover archived data in case of breakdown.
The user can make a data back-up.

- Micro SD card

  SD   To remove the Micro card SD, it is necessary to unlock it by pressing on *(Look p.4 section 3.2.2)*

When the card is removed, insert it in the card reader of your computer (if available) and recover the data.
If your computer doesn't have a SD card reader, use an adaptor or an external card reader available in commercial shops.

When the operation is finished, replace the Micro card SD as shown :

6. Replace the battery

Step 1:	Step 2 :	Step 3 :	Step 4 :
Open the battery compartment by unscrewing the screw	Remove the old battery	Put the new battery respecting the polarity	Replace the battery compartment by screwing the screw

Security directives about the battery:
- *Only battery type CR123A is authorised.*
- *Do not try to open the battery neither to throw it in the fire.*
- *Do not throw batteries in the house waste, eliminate them in accordance with the current legislation on the protection of the environment.*
- *Keep batteries out of reach of children. In case of ingestion of the batteries, contact immediately your doctor or a medical assistant.*
- *Do not try to reactivate the batteries with heat, an electric charge or any others ways.*

7. Error messages

DOWNLOAD ERROR

Tachograph download:
- Check the presence of a "Driver", "Company" or "Control" smartcard in the tachograph in order to allow the download
- Check if the cable is correctly connected and not defective
- Check if the SD card is correctly inserted and not defective

Smartcard download:
- Check if the SD card is correctly inserted and not defective (unreadable)

INSERT MEMORY CARD

This message appears when the SD card is not present or not inserted correctly
- Introduce correctly the memory card SD supplied with the product

INVALID MEMORY CARD

This message appears when the SD card is defective
- The system does not manage to format the card
- The system does not manage to read or to write on the card
- Introduce a new memory card SD
  (available in ACTIA under the reference AY14600028)

FULL MEMORY

This message appears when the SD card is full
- Connect the product to a computer in order to empty the data from the SD card *(Look p.7 section 5)*

INVALID BATTERY

This message appears when the battery is too low and does not allow the product to run
- Change the battery *(Look p.9 section 6)*

INVALID S.CARD

This message appears when the smartcard introduced in the D-Box 2 is not compatible
Only smartcards type "Driver" or "Workshop" are available to download *(Look p.7 section 4.2)*